

Multi-dimensional Pain Assessment and Psychosocial Interventions

MiCCSI

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Disclosures

- Consultant to Community Health Focus Inc.
- President of the American Pain Society
- Chair of Steering Committee reviewing grants for APS sponsored by Pfizer
- Funded for research by NIH

There will be no use of off-label medications in this presentation.

Shared Neurotransmitters Explain

- The complexity of chronic pain presentation

■ Sleep, Pain, Affect, Cognition, Energy



The diagram consists of five teal-colored curved arrows forming a circular path around the text 'Sleep, Pain, Affect, Cognition, Energy'. The arrows indicate a clockwise flow: from Sleep to Pain, Pain to Affect, Affect to Cognition, Cognition to Energy, and Energy back to Sleep. Additionally, a larger teal arrow curves from the top of the diagram down to the 'Pain' word, and another teal arrow curves from the 'Energy' word back up to the top of the diagram, suggesting a feedback loop between the first and last elements.

- New targets for treating pain perception

Multi-Dimensional Pain Assessment

- Documents targetable elements of chronic pain perception
- Monitors chronic pain perception over time
- Helps phenotype pain for research

How do you assess a pain perception?



Traditional Pain Assessment

Pain

Intensity

Location, Quality

Distribution

Temporality

Intensity

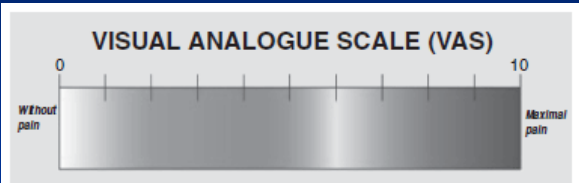
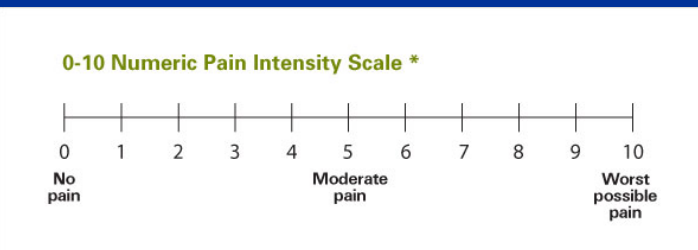
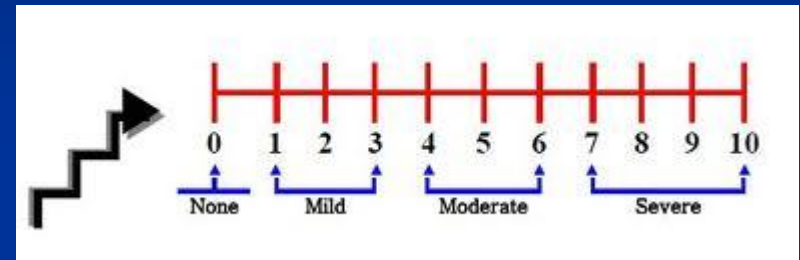


Figure 1. Visual Analogue Scale used to measure Pain.



Verbal Rating Scale: Discomfort Rating

- 0- Pain or Discomfort - none
- 1- Pain or Discomfort - I am aware of it, I think about it
- 2- Pain or Discomfort - I am aware of it, I think about it but I can ignore it at times.
- 3- Pain or Discomfort - I can't ignore it, but I can do my usual activities.
- 4- Pain or Discomfort - It is difficult for me to concentrate; I can only do easy activities.
- 5- Pain or Discomfort - Such that I cant do anything.



painDETECT PAIN QUESTIONNAIRE

Date: _____ Patient: Last name: _____ First name: _____

How would you assess your pain now, at this moment?
 0 1 2 3 4 5 6 7 8 9 10
 none max.

How strong was the **strongest** pain during the past 4 weeks?
 0 1 2 3 4 5 6 7 8 9 10
 none max.

How strong was the pain during the past 4 weeks **on average**?
 0 1 2 3 4 5 6 7 8 9 10
 none max.

Select the picture that best describes the pain you experience:

	Persistent pain with slight fluctuations	<input type="checkbox"/>
	Persistent pain with pain attacks	<input type="checkbox"/>
	Pain attacks without pain between them	<input type="checkbox"/>
	Pain attacks with pain between them	<input type="checkbox"/>

Please mark your main area of pain

Does your pain radiate to other regions of your body? yes no
 If yes, please draw the direction in which the pain radiates.

Do you suffer from a burning sensation (e.g., stinging nettles) in the marked areas?
 never hardly noticed slightly moderately strongly very strongly

Do you have a tingling or prickling sensation in the area of your pain (like crawling ants or electrical tingling)?
 never hardly noticed slightly moderately strongly very strongly

Is light touching (clothing, a blanket) in this area painful?
 never hardly noticed slightly moderately strongly very strongly

Do you have sudden pain attacks in the area of your pain, like electric shocks?
 never hardly noticed slightly moderately strongly very strongly

Is cold or heat (bath water) in this area occasionally painful?
 never hardly noticed slightly moderately strongly very strongly

Do you suffer from a sensation of numbness in the areas that you marked?
 never hardly noticed slightly moderately strongly very strongly

Does slight pressure in this area, e.g., with a finger, trigger pain?
 never hardly noticed slightly moderately strongly very strongly

(To be filled out by the physician)

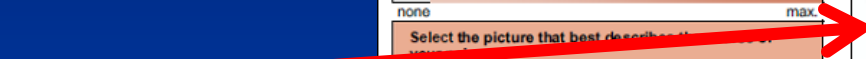
never	hardly noticed	slightly	moderately	strongly	very strongly
x 0 = 0	x 1 =	x 2 =	x 3 =	x 4 =	x 5 =

Total score out of 35

Intensity



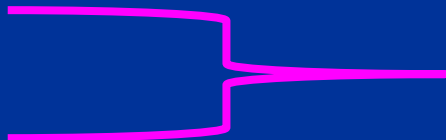
Distribution



Temporality



Quality



EMA Pain

Ex : Pain Diary

MONITORING PAIN DIARY

Instructions:

1. Keep a record of any pain you experience during any of the following periods with a 7 day diary.
2. Record how intense your pain was by rating it on a scale of 1 to 10 (1=not very painful to 10=highly painful).
3. Record what you were doing or the situation you were in when you experienced the pain.
4. Record your thoughts at the time of experiencing the pain.

This will help you to develop more awareness about your experiences of physical pain to help you identify strategies and techniques to help manage pain.

DAY	Brief description of type of pain	RATE 1-10	Situation/What you were doing	What you were thinking at the time	
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

Question 8

How much pain are you experiencing right now?

(0 to 10)

2



No pain

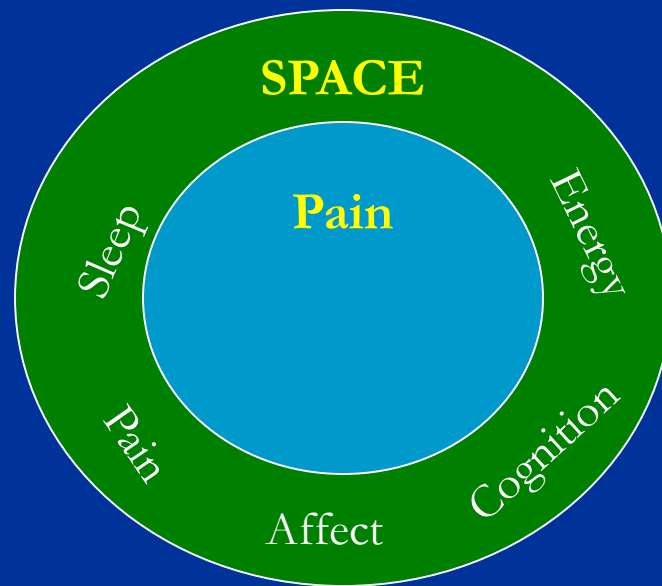
Pain as bad as you can imagine

BACK

NEXT

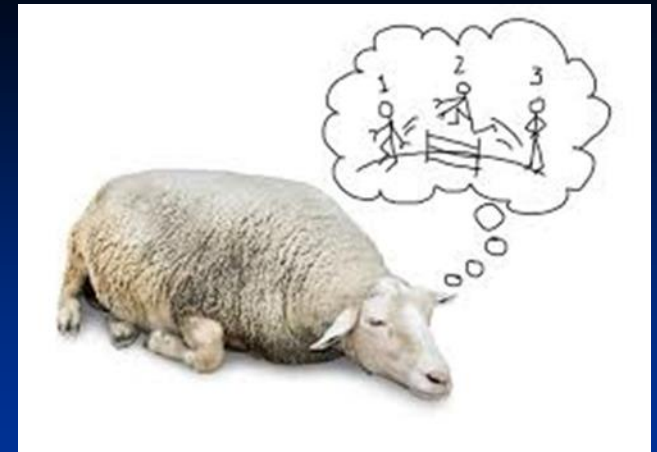


Domains of Pain Assessment



Sleep

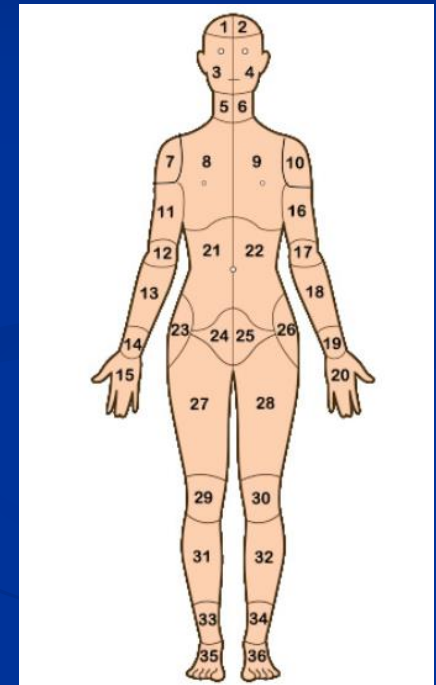
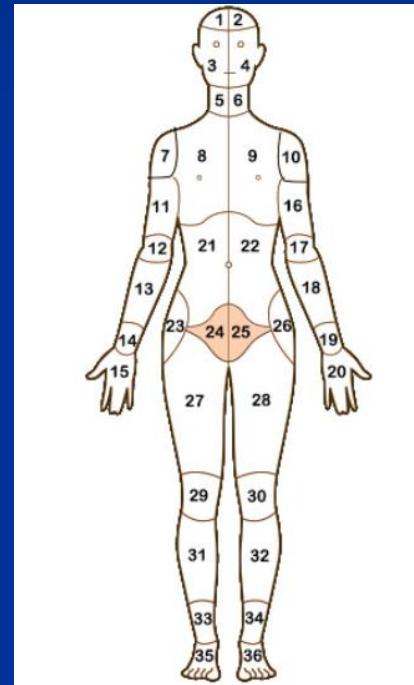
- Sleep Disturbances
 - PROMIS¹
 - MOS²
 - PSQI³
- Sleep-related Impairment
 - PROMIS¹



Sleep: ¹Cella D, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. *J Clin Epidemiol.* 2010;63(11):1179-94. ²Allen RP, et al. Psychometric evaluation and tests of validity of the Medical Outcomes Study 12-item Sleep Scale (MOS sleep). *Sleep medicine.* 2009;10(5):531-9. ³Buysse,D.J. et al. (1989). The Pittsburgh Sleep Quality Index (PSQI): A new instrument for psychiatric research and practice. *Psychiatry Research*, 28(2), 193-213. The detailed scoring instructions are at the end of this journal article.

Focal vs Wide-Spread Pain

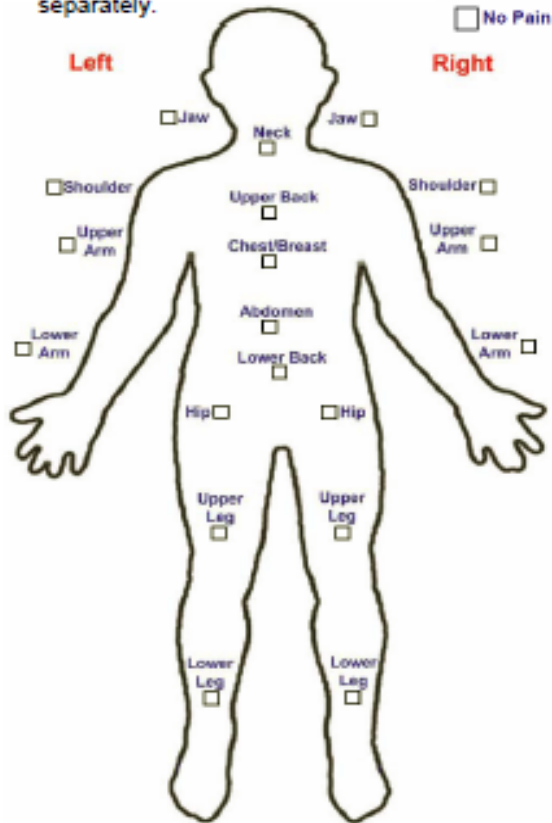
- Body Maps
- Assess for local Vs. Wide-spread pain
- In IC, only 19% focal



Fibromyalgia-ness

Fibromyalgia Symptoms (Modified ACR 2010 Fibromyalgia Diagnostic Criteria)

1. Please indicate below if you have had pain or tenderness over the past 7 days in each of the areas listed below. Check the boxes in the diagram below for each area in which you have had pain or tenderness. Be sure to mark right and left sides separately.



2. Using the following scale, indicate for each item your severity over the past week by checking the appropriate box.

No problem

Slight or mild problems: generally mild or intermittent

Moderate: considerable problems; often present and/or at a moderate level

Severe: continuous, life-disturbing problems

	No problem	Slight or mild	Moderate	Severe
a. Fatigue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Trouble thinking or remembering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Waking up tired (unrefreshed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. During the past 6 months have you had any of the following symptoms?

	No	Yes
a. Pain or cramps in lower abdomen	<input type="checkbox"/>	<input type="checkbox"/>
b. Depression	<input type="checkbox"/>	<input type="checkbox"/>
c. Headache	<input type="checkbox"/>	<input type="checkbox"/>

4. Have the symptoms in questions 2-3 and pain been present at a similar level for at least 3 months?

No Yes

5. Do you have a disorder that would otherwise explain the pain?

No Yes

Affect and Chronic Pain

IASP Definition of Pain:

An unpleasant *sensory and emotional* experience associated with actual or potential tissue damage or described in terms of such damage¹

Affective Vulnerability:

Highly predictive of first onset of chronic pain (e.g., TMD).²

Neuroimaging Findings:

Compared to acute pain, chronic pain appears more like an emotional event than a sensory event.^{3,4}

¹IASP Pain Terminology. International Association for the Study of Pain Website. http://www.iasp-pain.org/AM/Template.cfm?Section=Pain_Definitions&Template=/CM/HTMLDisplay.cfm&ContentID=1728#Pain. Updated 2007. Accessed January 6, 2011; ²Fillingim et al, Psychological factors associated with development of TMD: the OPPERA prospective cohort study. *J Pain*, 14(12 supp2), 2013:T75-T90; ³Hashmi JA, et al, Shape shifting pain: chronification of back pain shifts brain representation from nociceptive to emotional circuits. *Brain*, 2013;136(Pt 9):2751-68; ⁴Denk F, McMahon SB, Tracey I. Pain vulnerability: a neurobiological perspective. *Nature neuroscience*. 2014;17(2):192-200.

Negative Affect

- Depression/Dysphoria
 - CES-D¹
 - PHQ-9²
 - PROMIS³
- Anxiety
 - STAI⁴
 - GAD-7⁵
 - PROMIS³
- Anger
 - STAXI⁶
 - PROMIS³

Negative Affect: ¹Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement* 1977;1:385-401. ²Kroenke K, et al. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med.* 2001;16(9):606-13. ³Cella D, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. *J Clin Epidemiol.* 2010;63(11):1179-94. ⁴Spielberger CD, et al. *Assessment of state and trait anxiety. Anxiety: psychobiological and clinical perspectives.* Washington: Hemisphere/Taylor and Francis; 1991:69-83. ⁵Spitzer RL et al. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine.* 2006;166(10):1092-7. ⁶Spielberger CD. *STAXI-2: State-Trait Anger Expression Inventory - 2.* Professional Manual. Odessa, FL: Psychological Assessment Resources (PAR), Inc.; 1999.

Positive Affect / Resilience

- Positive/Negative Affect
 - PANAS¹
- Affect Balance²
- Hardiness
- Grit
 - Short Grit Scale^{3,4}
- Optimism
- Determination/courage
- Satisfaction with life
 - SWL⁵
- Benefit Finding
- Gratitude
- Forgiveness
- Subjective Well-being
 - SWBS⁶
 - PROMIS Affect/Well-being⁷
- Sense of Coherence

Resilience and Positive Affect: ¹Watson D. et al. Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality & Social Psychology* 1988;54:1063-70. ²Hassett AL, et al. The relationship between affect balance style and clinical outcomes in fibromyalgia. *Arthritis and Rheumatism*. 2008;59(6):833-40. ³Duckworth AL, et al, Grit: perseverance and passion for long-term goals. *Journal of personality and social psychology*. Jun 2007;92(6):1087-1101. ⁴Duckworth AL, et al. Development and validation of the short grit scale (grit-s). *Journal of personality assessment*. Mar 2009;91(2):166-174. ⁵Diener E, et al. The Satisfaction With Life Scale. *Journal of personality assessment*. Feb 1985;49(1):71-75. ⁶Diener E. *Assessing Well-Being: The Collected Works of Ed Diener*. New York: Springer; 2009. ⁷Cella D, et al. The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. *J Clin Epidemiol*. 2010;63(11):1179-94

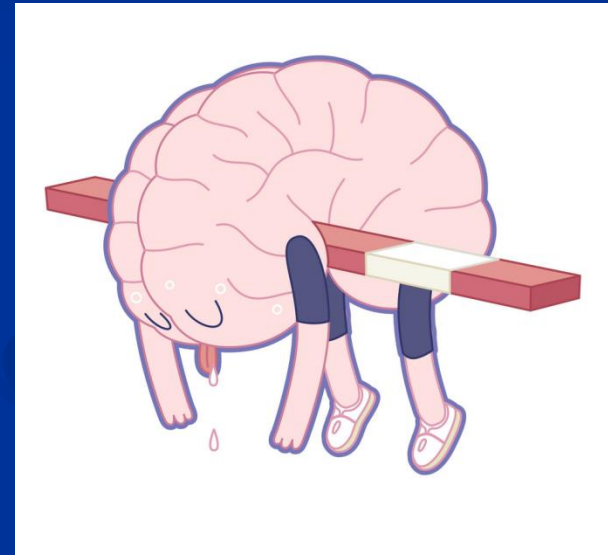
Dyscognition

- Perceived Problems
 - MASQ⁴
 - MISCI⁵



Fatigue

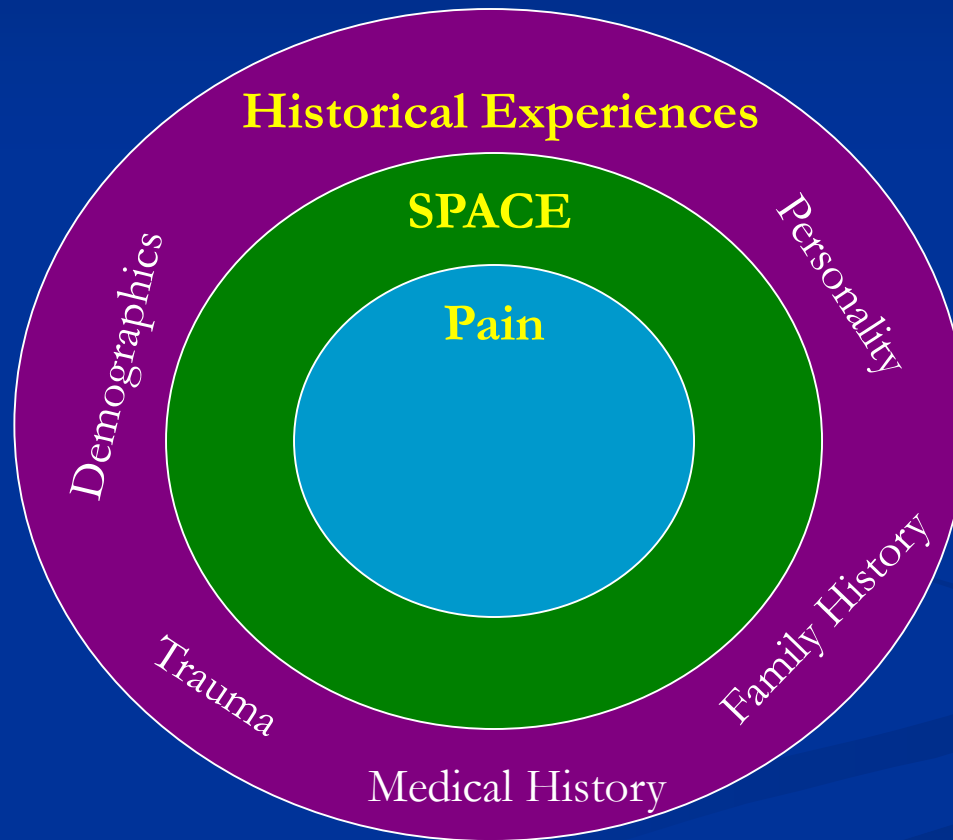
- Multidimensional Fatigue
 - MFI⁶
 - PROMIS¹



Dyscognition: ⁴Seidenberg M. et al. Development and validation of a Multiple Ability Self-Report Questionnaire. *Journal of Clinical & Experimental Neuropsychology*. 1994;16(1):93-104.; ⁵Kratz AL, et al. Development and Initial Validation of a Brief Self-Report Measure of Cognitive Dysfunction in Fibromyalgia. *The J Pain*, 2015.

Fatigue: ⁶Smets EM, et al. The Multidimensional Fatigue Inventory (MFI) psychometric qualities of an instrument to assess fatigue. *Journal of Psychosomatic Research* 1995;39:315-25.

Domains of Pain Assessment



Medical History

- Demographics
- Co-morbid medical conditions
- Current Treatments
- Medical History
- Family History

Trauma/Stress

- Trauma
 - CTES/RTES⁷
- Stress
 - PSS⁸

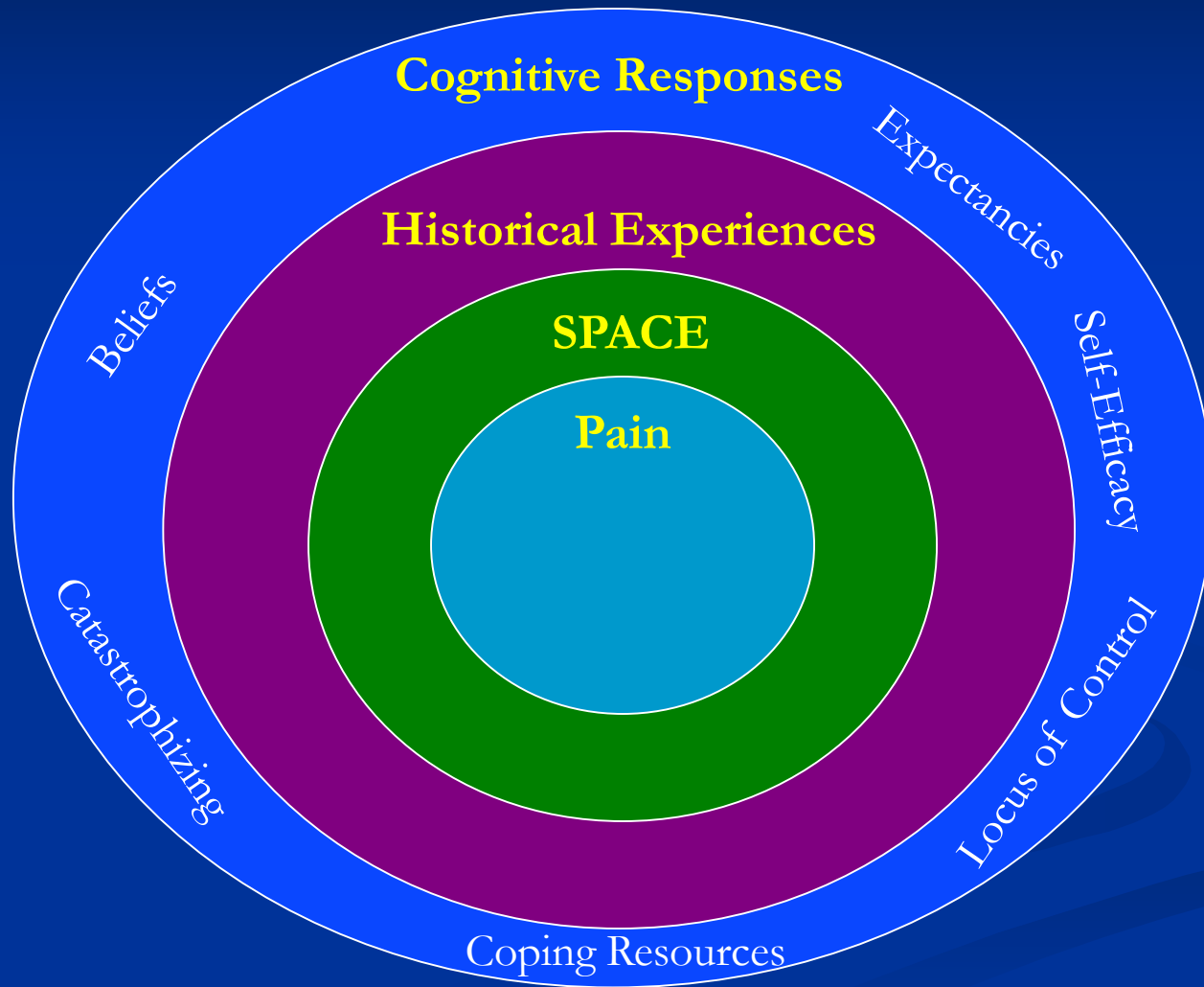
Personality

- 5 Factor Model
 - Neuroticism
 - Extroversion
 - Openness
 - Conscientiousness
 - Agreeableness
- IPIP⁹
- TIPI¹⁰

Trauma: ⁷Pennebaker JW, et al. Disclosure of traumas and psychosomatic processes. *SocSciMed*. 1988;26(3):327-32.; ⁸Cohen S, et al. A global measure of perceived stress. *JHealth SocBehav*. 1983;24(4):385-96.

Personality: ⁹Goldberg, L. R., et al. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality*, 40, 84-96.; ¹⁰Gosling, S. D., et al. (2003). A Very Brief Measure of the Big Five Personality Domains. *Journal of Research in Personality*, 37, 504-528.

Domains of Pain Assessment



Pain Beliefs

- Multi-component
 - SOPA¹
 - PBPI²
 - BBCA³
- Locus of Control
 - BPCQ⁴

Coping Resources

- Coping Strategies
 - CSQ⁵
 - CPCI⁶
- Catastrophizing
 - PCS⁷
- Self-Efficacy
 - PSE⁸

Expectancies

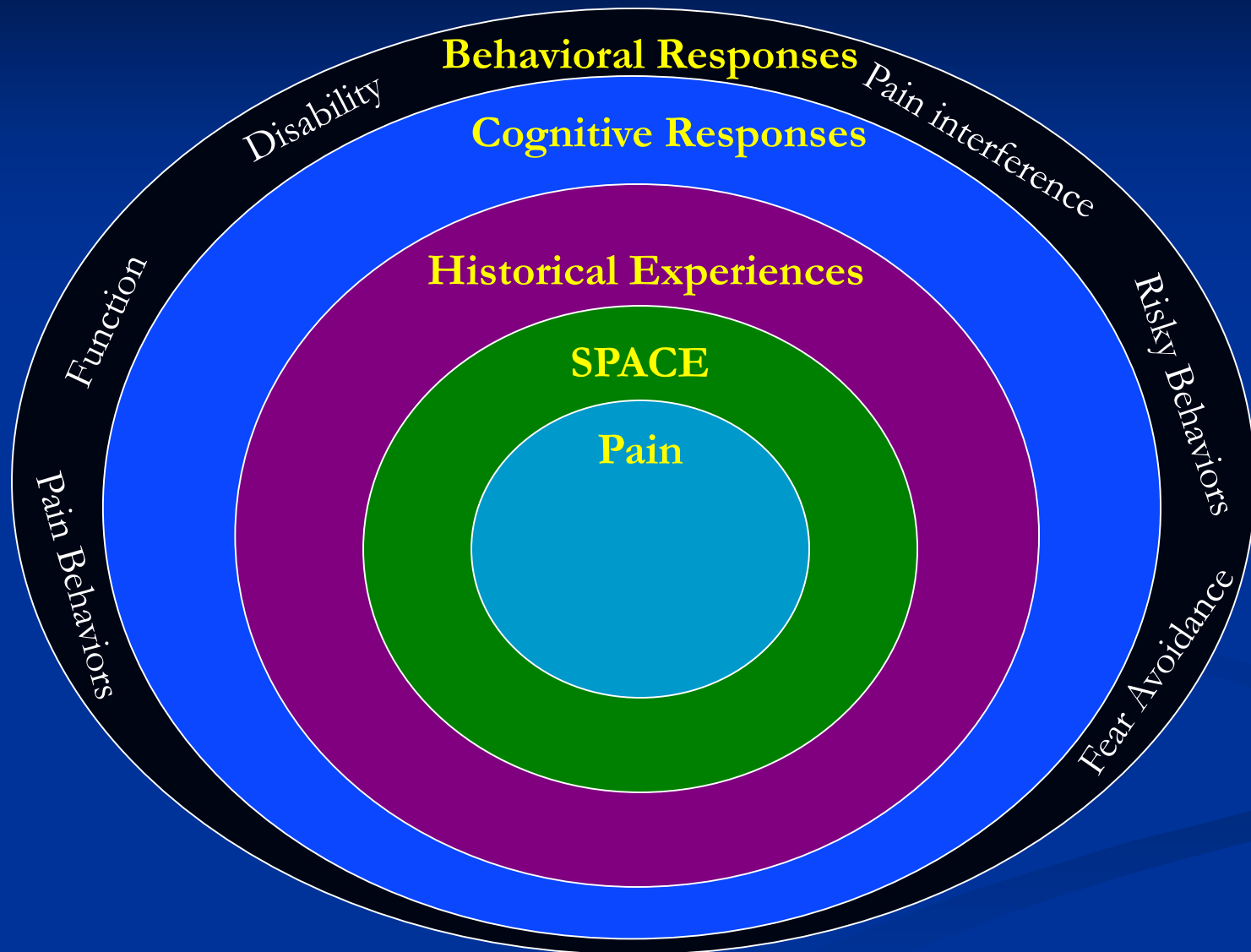
- Treatment Expectancy and credibility
 - TEC⁹

Beliefs: ¹Jensen MP, et al. Relationship of pain-specific beliefs to chronic pain adjustment. *Pain*. 1994;57(3):301-9.; ²Williams DA. et al., Pain beliefs: Assessment and utility. *Pain*. 1994;59(1):71-8. ³Jensen MP, et al. One- and two-item measures of pain beliefs and coping strategies. *Pain*. 2003;104(3):453-69. ⁴Skevington SM. A standardized scale to measure beliefs about controlling pain (BPCQ): A preliminary study. *Psychology and Health* 1990;4:221-32.

Coping: ⁵Rosenstiel AK, Keefe FJ. The use of coping strategies in chronic low back pain patients: Relationship to patient characteristics and current adjustment. *Pain* 1983;17:33-44; ⁶Jensen MP, et al. The Chronic Pain Coping Inventory: development and preliminary validation. *Pain*. 1995;60(2):203-16. ⁷Sullivan M, et al.. The Pain Catastrophizing Scale: Development and validation. *Psychological Assessments* 1995;7:524-32. ⁸Lorig K, et al. Development and evaluation of a scale to measure perceived self-efficacy in people with arthritis. *Arthritis & Rheumatism* 1989;32:37-44.

Expectancies: ⁹Smeets RJ, et al., Treatment expectancy and credibility are associated with the outcome of both physical and cognitive-behavioral treatment in chronic low back pain. *The Clinical journal of pain*. 2008;24(4):305-15.

Domains of Pain Assessment



Functioning

- Multidimensional Functioning
 - SF-36¹
 - WHO-DAS 2.0²
- Pain Interference
 - BPI³ (interference)
- Disability
 - PDI⁴

Pain Behaviors

- PROMIS⁵

Fear Avoidance

- TSK⁶

Functional Status: ¹Ware JE, et al. How to Score Version Two of the SF-36r Health Survey. Lincoln, RI: QualityMetric, Inc.; 2000. ²World Health Organization. Measuring health and disability: manual for WHO disability assessment schedule (WHODAS 2.0), World Health Organization, 2010, Geneva. ³Cleeland C. The Brief Pain Inventory: User Guide. Houston, TX: MD Anderson Cancer Center; 2009. ⁴Tait RC, et al. The Pain Disability Index: Psychometric properties. Pain. 1990;40(2):171-82.

Pain Behaviors and Fear Avoidance: ⁵Revicki DA, et al. Development and psychometric analysis of the PROMIS pain behavior item bank. Pain. 2009;146(1-2):158-69. ⁶Burwinkle, T., et al. (2005). Fear of movement: factor structure of the Tampa Scale of Kinesiophobia in patients with fibromyalgia syndrome. The Journal of Pain, 6(6), 384-391.

Substance Use

- Tobacco
 - ⁵FTQ
- Alcohol
 - ⁶CAGE
 - ⁷AUDIT
- Opiates
 - ⁸ORT
 - ⁹COWS
- Illicit Drugs
 - ¹⁰DAST

NURSING MNEMONICS & TIPS
ALCOHOLISM SCREENING
"CAGE"

	DESCRIPTION	QUESTION
C	CONCERN by the person that there is a problem	Have you ever felt that you should CUT down on your drinking?
A	APPARENT to others that there is a problem	Have you ever become ANNNOYED by criticisms of your drinking?
G	GRAVE consequences	Have you ever felt GUULTY about your drinking?
E	EVIDENCE of dependence or tolerance	Have you ever had a morning EYE OPENER to get rid of a hangover?

LEARN MORE: CAGE QUESTIONNAIRE
 CAGE questionnaire is a widely used and an extensively validated method of screening for alcoholism. Two "yes" responses indicate that the possibility of alcoholism should be investigated further.

GET ALL MNEMONICS AND TIPS AT
<http://nurseslabs.com/mnemonics>

Opioid Risk Tool (ORT)

Mark each box that applies:

	Female	Male
1. Family history of substance abuse		
Alcohol	<input type="checkbox"/> 1	<input type="checkbox"/> 3
Illegal drugs	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Prescription drugs	<input type="checkbox"/> 4	<input type="checkbox"/> 4
2. Personal history of substance abuse		
Alcohol	<input type="checkbox"/> 3	<input type="checkbox"/> 3
Illegal drugs	<input type="checkbox"/> 4	<input type="checkbox"/> 4
Prescription drugs	<input type="checkbox"/> 5	<input type="checkbox"/> 6
3. Age (mark box if between 16-45 years)	<input type="checkbox"/> 1	<input type="checkbox"/> 1
4. History of preadolescent sexual abuse	<input type="checkbox"/> 3	<input type="checkbox"/> 0
5. Psychological disease		
ADO, OCD, bipolar, schizophrenia	<input type="checkbox"/> 2	<input type="checkbox"/> 2
Depression	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Scoring totals:		

Administration

- On initial visit
- Prior to opioid therapy

Scoring

- 0-3: low risk (6%)
- 4-7: moderate risk (28%)
- ≥ 8: high risk (> 90%)

Webster & Webster, *Pain Med.* 2005;6:432.

Wesson & Ling, J Psychoactive Drugs. 2003 Apr-Jun;35(2):253-9.

COWS Clinical Opiate Withdrawal Scale

Resting Pulse Rate: _____ beats/minute <i>Measured after patient is sitting or lying for one minute</i> 0 Pulse rate 80 or below 1 Pulse rate 81-100 2 Pulse rate 101-120 3 Pulse rate greater than 120	GI upset: over last 1/2 hour 0 No GI symptoms 1 Stomach cramps 2 Nausea or loose stool 3 Vomiting or diarrhea 4 Multiple episodes of diarrhea or vomiting
Sweating: over past 1/2 hour not accounted for by room temperature or patient activity 0 No report of chills or flushing 1 Subjective report of chills or flushing 2 Flushed or observable moistness on face 3 Beads of sweat on brow or face 4 Sweat streaming off face	Tremor: observation of unstimulated hands 0 No tremor 1 Tremor can be felt, but not observed 2 Slight tremor observable 3 Moderate tremor 4 Great tremor or muscle twitching
Restlessness: Observation during assessment 0 Able to sit still 1 Reports difficulty sitting still, but is able to do so 3 Frequent shifting or excessive movement of legs/arms 5 Unable to sit still for more than a few seconds	Yawning: Observation during assessment 0 No yawning 1 Yawning once or twice during assessment 3 Yawning three or more times during assessment 4 Yawning several times/minute
Pupil size 0 Pupils pinned or normal size for room light 1 Pupils possibly larger than normal for room light 2 Pupils moderately dilated 3 Pupils so dilated that only the rim of the iris is visible	Anxiety or irritability 0 None 1 Patient reports increasing irritability or anxiety 2 Patient obviously irritable/anxious 4 Patient so irritable or anxious that participation in the assessment is difficult
Bone or joint aches: If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored 0 Not present 1 Mild diffuse discomfort 2 Patient reports severe diffuse aching of joints/muscles 4 Patient is rubbing joints or muscles and is unable to sit still because of discomfort	Crossed/itch skin 0 Skin is smooth 3 Flare/irritation of skin can be felt or hairs standing up on arms 5 Prominent piloerection
Runny nose or tearing: Not accounted for by cold symptoms or allergies 0 Not present 1 Nasal mucus or unusually moist eyes 2 Nose running or tearing 4 Nose constantly running or tears streaming down cheeks	Total Score The total score is the sum of all 11 items. Initials of person completing Assessment: _____

Score: 5-12 mild; 13-24 moderate; 25-36 moderately severe; more than 36 = severe withdrawal

PEDAGOGY *pre-ful-ful-ful*

Drug Abuse Screening Test – DAST 10

The list of questions concerning information about your potential involvement with drugs, excluding alcohol and tobacco, during the past 12 months:

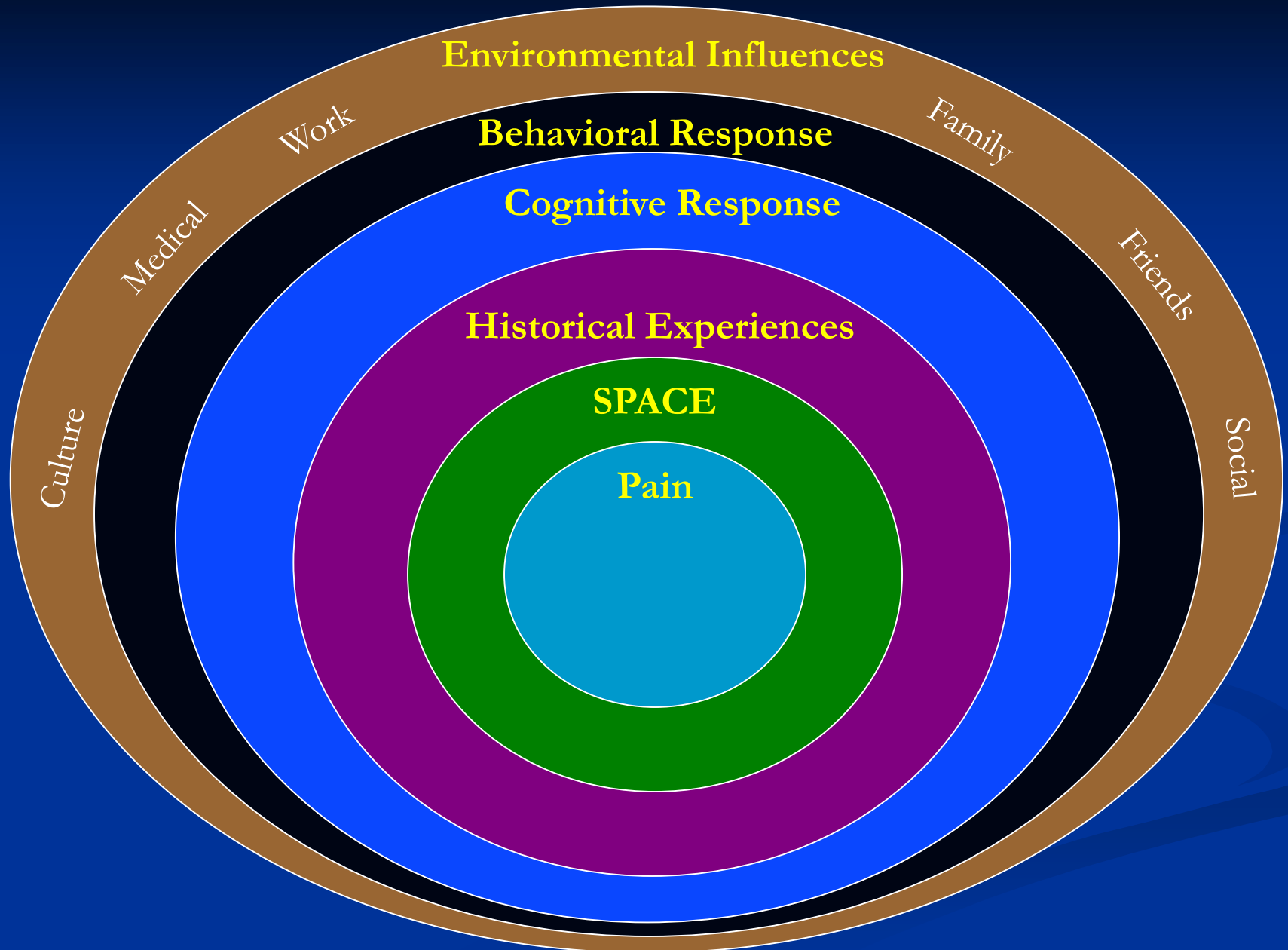
When the words "drug abuse" are used, they mean the use of prescribed or over-the-counter medications/drugs in excess of the directions and any non-medical use of drugs. The various classes of drugs may include: cannabis (e.g., marijuana, hash), sedatives, tranquilizers (e.g., Valium), barbiturates, cocaine, amphetamines (e.g., Speed), hallucinogens (e.g., LSD) or narcotics (e.g., heroin). Remember that the systems do not include alcohol or tobacco.

If you have difficulty with a statement, then choose the response that is mostly right. You may choose to answer or not answer any of the questions in this screen.

These questions refer to the past 12 months.	No	Yes
1. Have you used drugs other than those required for medical reasons?	<input type="checkbox"/> 0	<input type="checkbox"/> 1
2. Do you abuse more than one drug at a time?	<input type="checkbox"/> 0	<input type="checkbox"/> 1
3. Are you always able to stop using drugs when you want to? (if never use drugs, answer "No")	<input type="checkbox"/> 0	<input type="checkbox"/> 1
4. Have you had "blackouts" or "blacked out" as a result of drug use?	<input type="checkbox"/> 0	<input type="checkbox"/> 1
5. Do you ever feel bad or guilty about your drug use? (if never use drugs, choose "No")	<input type="checkbox"/> 0	<input type="checkbox"/> 1
6. Have your spouse (or partner) ever complained about your involvement with drugs?	<input type="checkbox"/> 0	<input type="checkbox"/> 1
7. Have you neglected your family because of your use of drugs?	<input type="checkbox"/> 0	<input type="checkbox"/> 1
8. Have you engaged in illegal activities in order to obtain drugs?	<input type="checkbox"/> 0	<input type="checkbox"/> 1
9. Have you ever experienced withdrawal symptoms (e.g., dizziness) when you stopped taking drugs?	<input type="checkbox"/> 0	<input type="checkbox"/> 1
10. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.)?	<input type="checkbox"/> 0	<input type="checkbox"/> 1

Substance Usage: ⁵Heatherton TF, et al. The Fagerstrom Test for Nicotine Dependence: A revision of the Fagerstrom Tolerance Questionnaire. *British Journal of Addiction.* 1991;86(9):1119-27. ⁶Ewing JA. Detecting alcoholism. The CAGE questionnaire. *JAMA.* 1984;252(14):1905-7. ⁷Babor, TF, AUDIT, World Health Organization, Geneva (2001). ⁸Webster, LR & Webster, R (2005), *Pain Med* 6(6):432. ⁹Wesson, DR et al (2003). COWS. *J. Psychoactive Drugs*, 35(2):253-259. ¹⁰Skinner, HA (1982) *Addictive Behavior*, 7:363-371.

Domains of Pain Assessment



Social

- Multicomponent Social Functioning
 - WHYMPI¹
- Social Enfranchisement
 - PE²



Family

- Dyadic Adjustment
 - DAS³



Work

- Work Productivity/Impairment
 - WPAI⁴

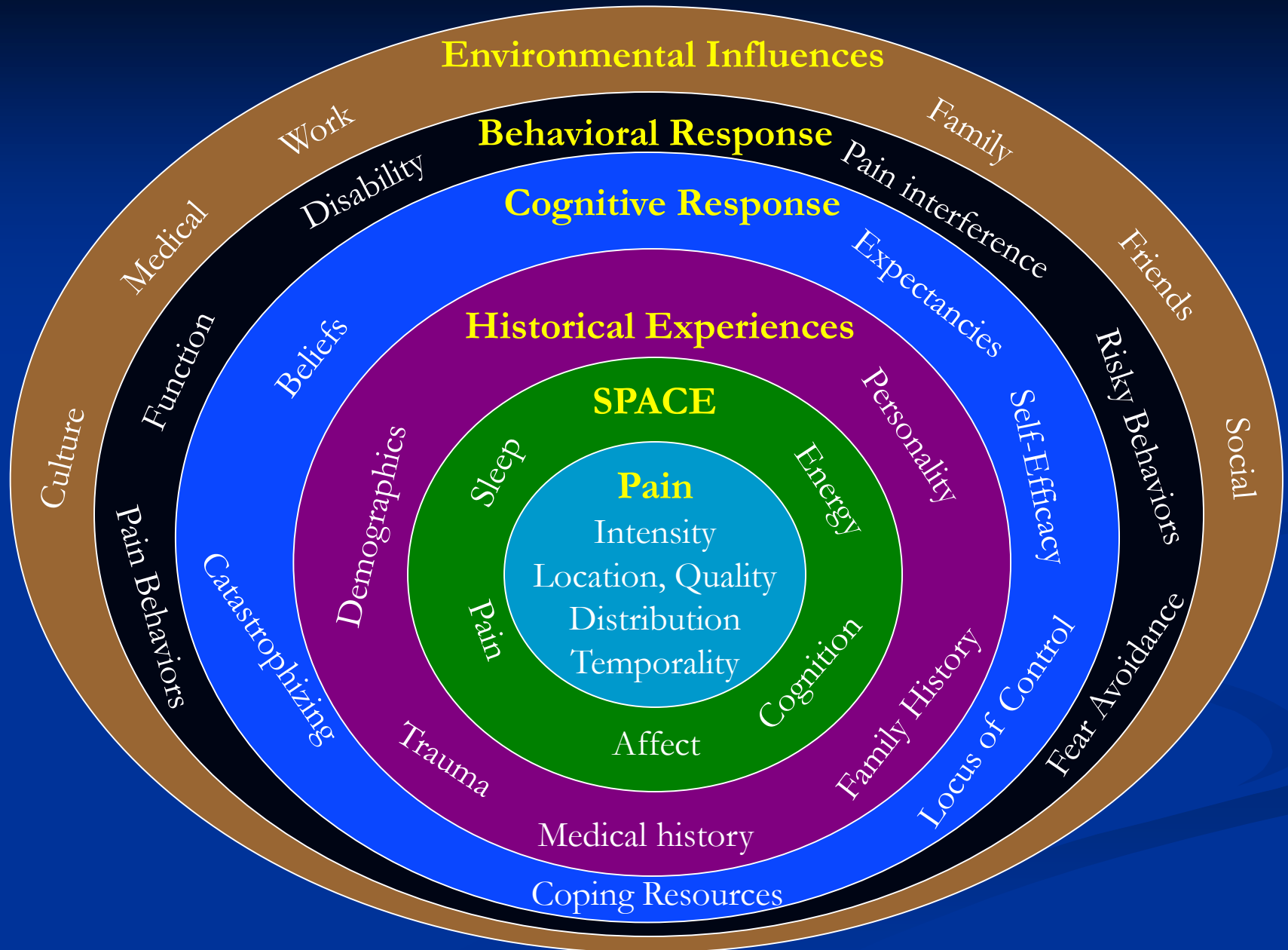


Social: ¹Kerns RD, Turk DC, Rudy TE. The West Haven-Yale Multidimensional Pain Inventory (WHYMPI). Pain 1985;23:345-56. ²Heinemann AW, Lai JS, et al. Measuring participation enfranchisement. Arch Phys Med Rehabil. 2011 Apr;92(4):564:71.

Family: ³Spanier GB. The measurement of marital quality. J Sex Marital Ther

Work: ⁴Reilly MC, Zbrozek AS, Dukes EM. The validity and reproducibility of a work productivity and activity impairment instrument. Pharmacoeconomics 1993; 4(5):353-65.

Domains of Pain Assessment

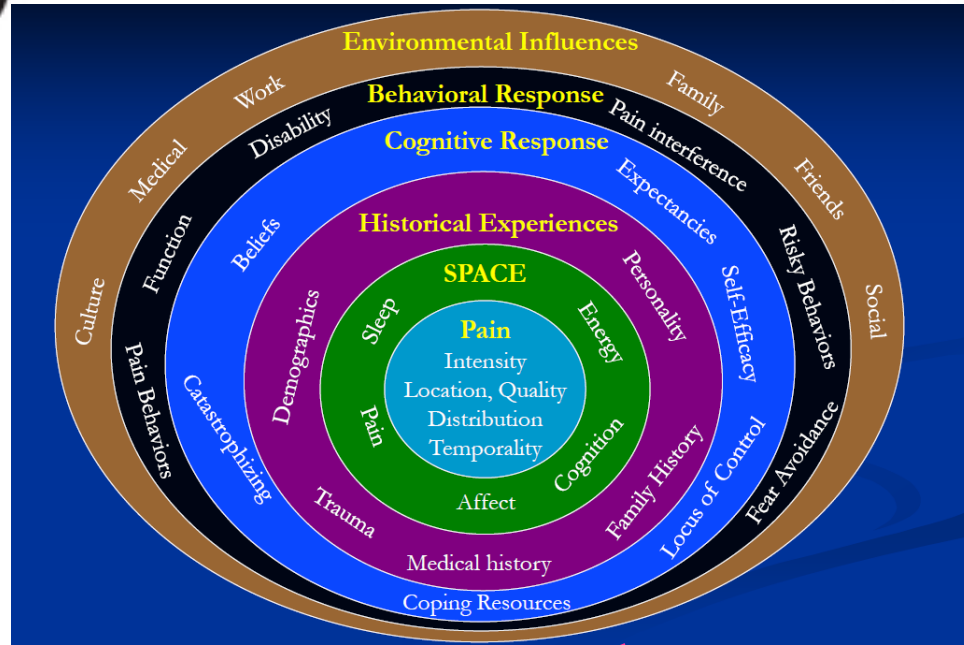


Do we need to assess everything?

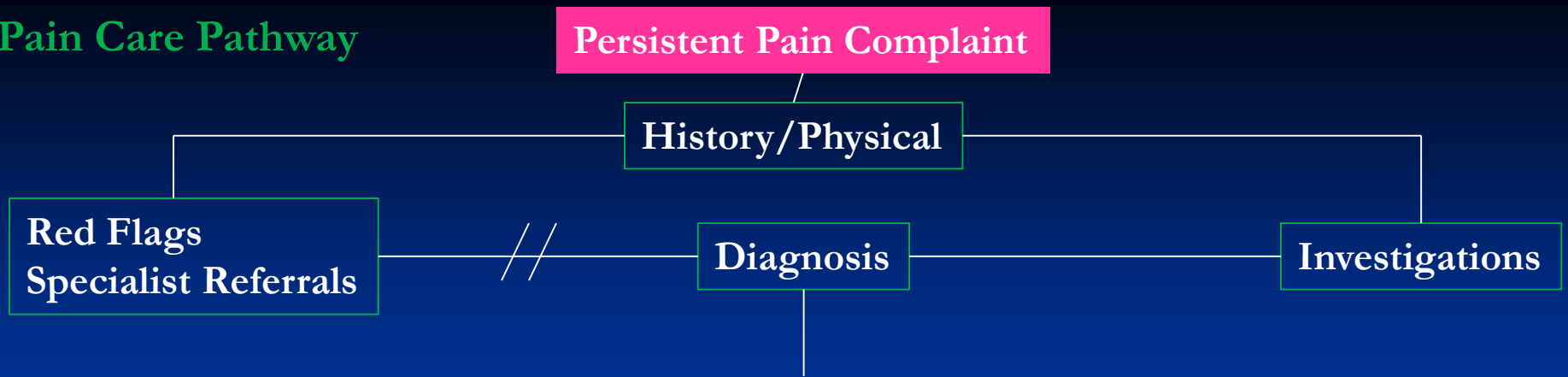


How do you use assessments to treat a pain perception?



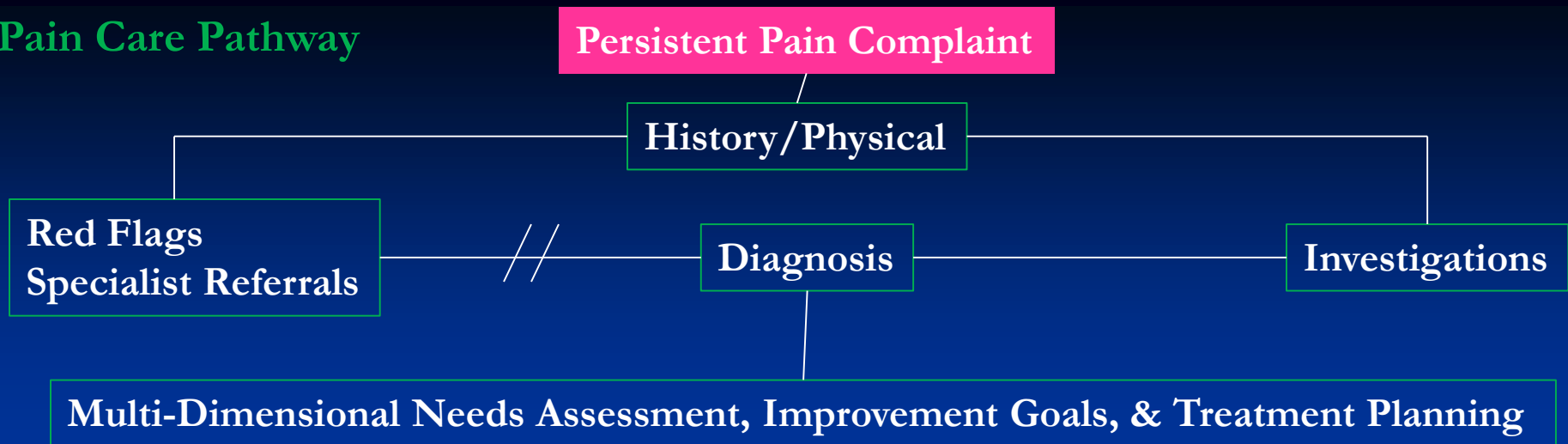


Pain Care Pathway



Diagnostic – 65 y/o female, retired, R-KOA, possible FM, Pain 7/10

Pain Care Pathway



Diagnostic – 65 y/o female, retired, R-KOA, possible FM, Pain 7/10

Sleep: poor, non-restorative

Pain: wide-spread, FM-ness=11 (subclinical FM)

Affect: Anxiety > Depression

Cognition: complains of memory and concentration problems

Energy: fatigue early in day and late at night

Childhood Trauma: sister died in house fire

Beliefs: Her pain is God's punishment for failing to save sister's life

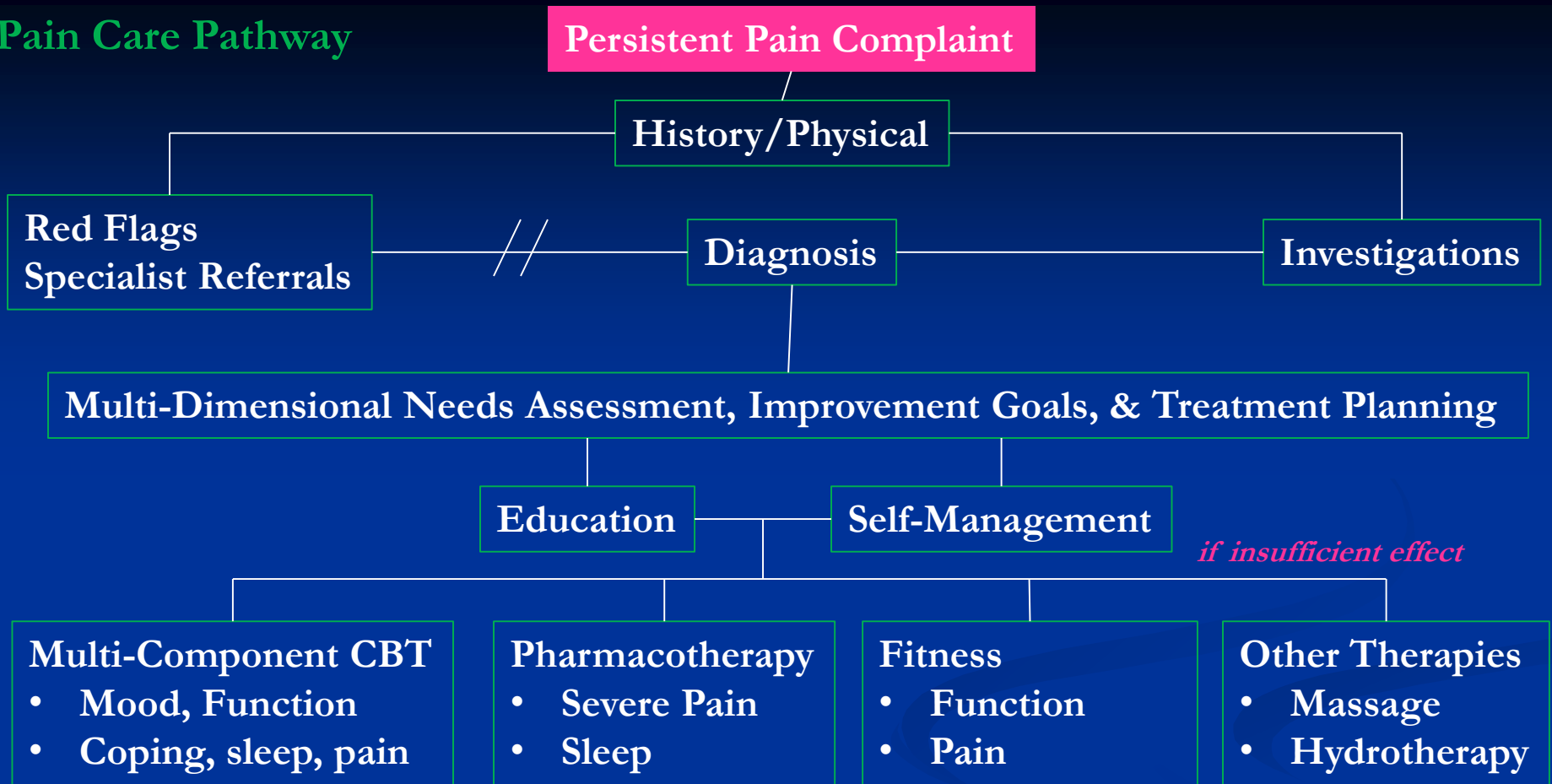
Functioning: both mental and physical functioning have become worse

Social: Husband is 8 years older than her, misses companion for activities

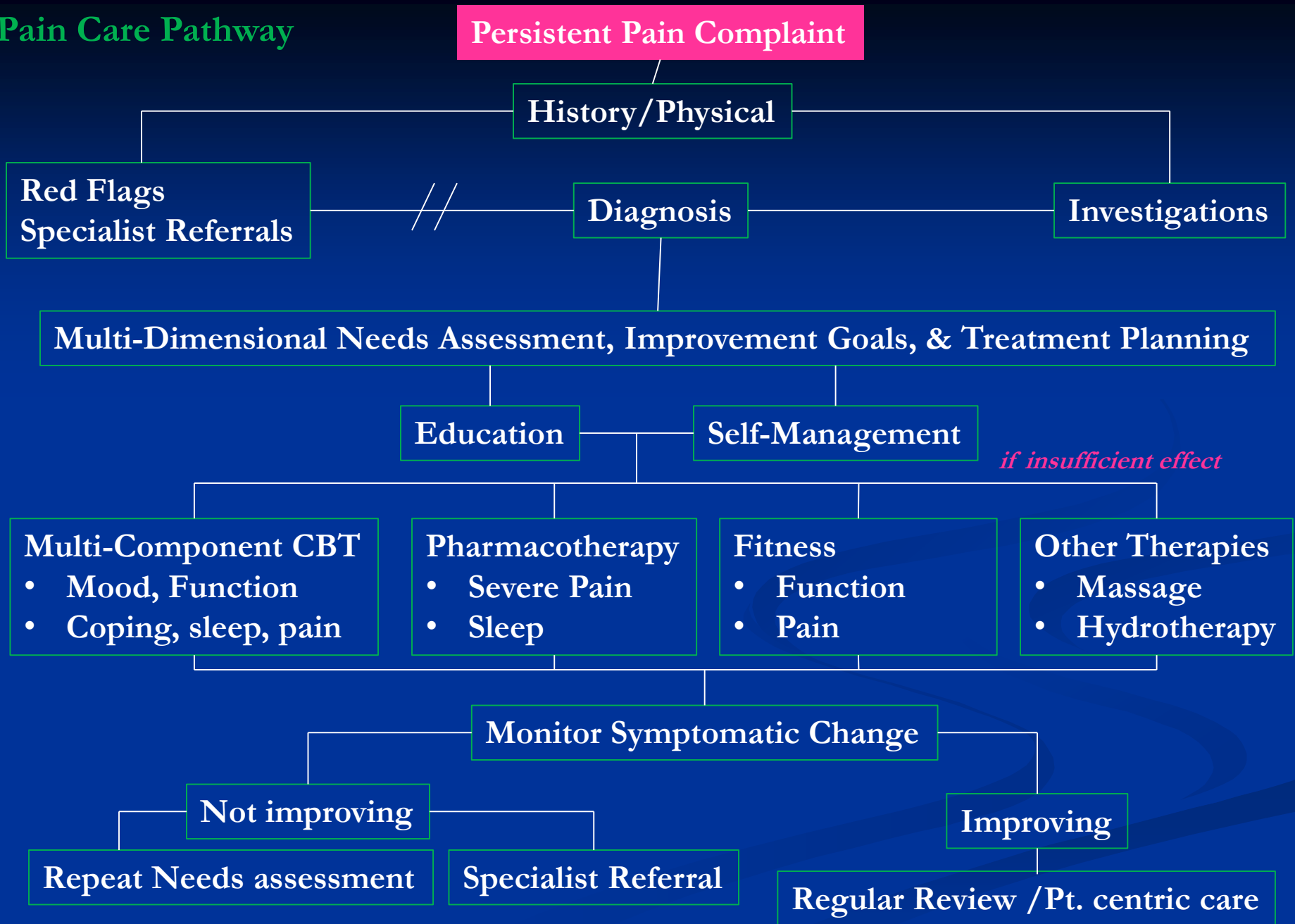
Targets

- Self-Management
 - Behavioral Sleep Strategies
 - Pacing
 - Social
- Physical Therapy
 - Functional status
- Cognitive Behavioral Therapy
 - Anxiety
 - Beliefs

Pain Care Pathway



Pain Care Pathway



Self-Management is Supported by CBT, Fitness, and Education



How to ERASE S.P.A.C.E.

Emotions

Reflections

Actions

Sleep

Environment



Sleep, Pain, Affect, Cognitive changes, Energy deficits

E.R.A.S.E. S.P.A.C.E.

EMOTIONS

Pleasant Activity Scheduling

EAET

REFLECTIONS

Relaxation

Reframing

Fog reduction

ACTIONS

Exercise

Life Style Activity

Pacing

Wellness

Problem solving/Goal Setting

Resilience

SLEEP

Behavioral Sleep Strategies

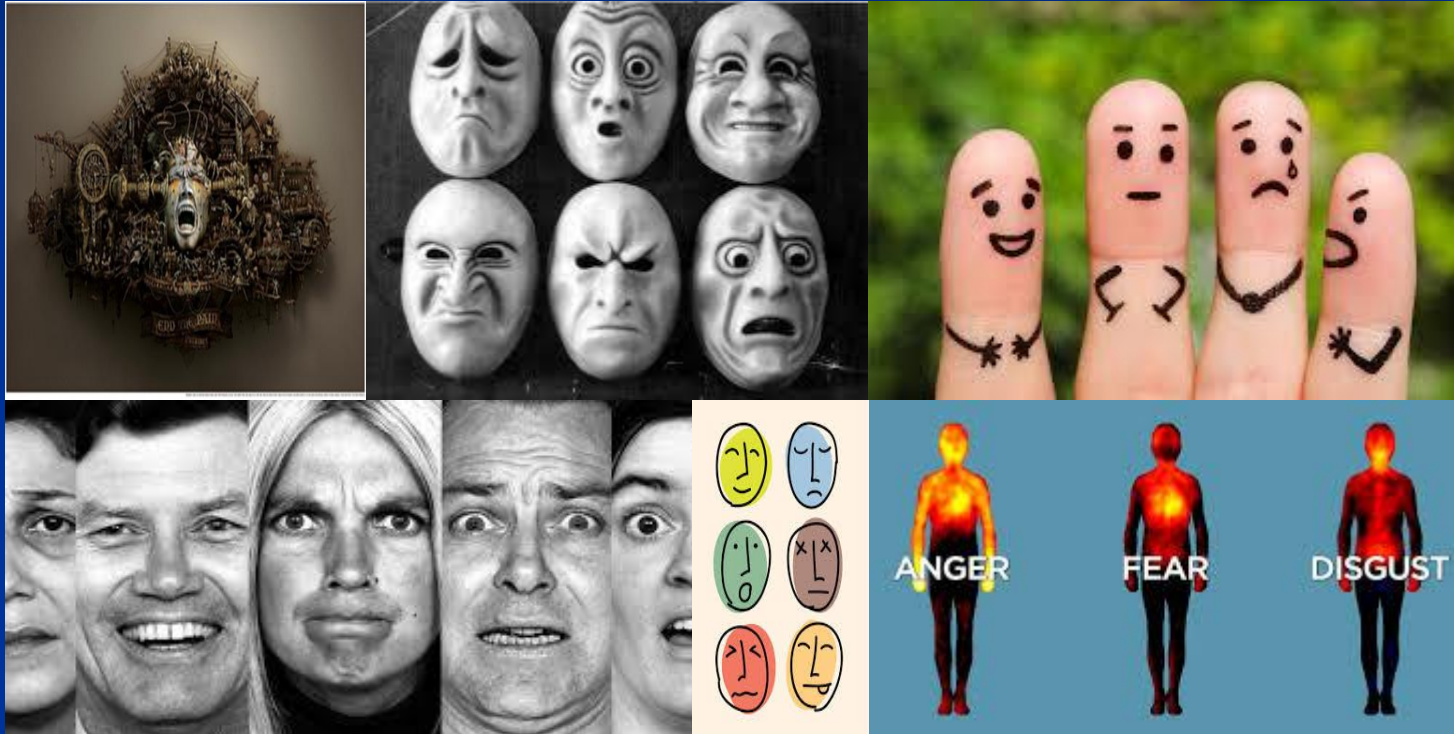
ENVIRONMENT

Interpersonal Communication

Nature/Nurture

ERASE

Emotions



Altering pain perception through Emotions

Approaches to Resolve Negative Affect Influencing Chronic Pain



Emotional Awareness and
Expression Therapy (EAET)



Pleasant Activity Scheduling



Traditional Psychotherapy

Emotional Awareness and Expression Therapy (EAET)

- Based on assumption that pain is influenced by unresolved emotional conflict/trauma
- Therapy seeks to resolve affective perturbation
- Effects similar to CBT with some profound remissions of pain
- May be good fit for individuals with trauma history



Pleasant Activity Scheduling



Pleasant Activity Scheduling

- Initiates movement through pleasant events
- Pleasant affect buffers pain
- Scheduling is better than random occurrences
 - More likely to happen
 - More predictable, less flare-ups

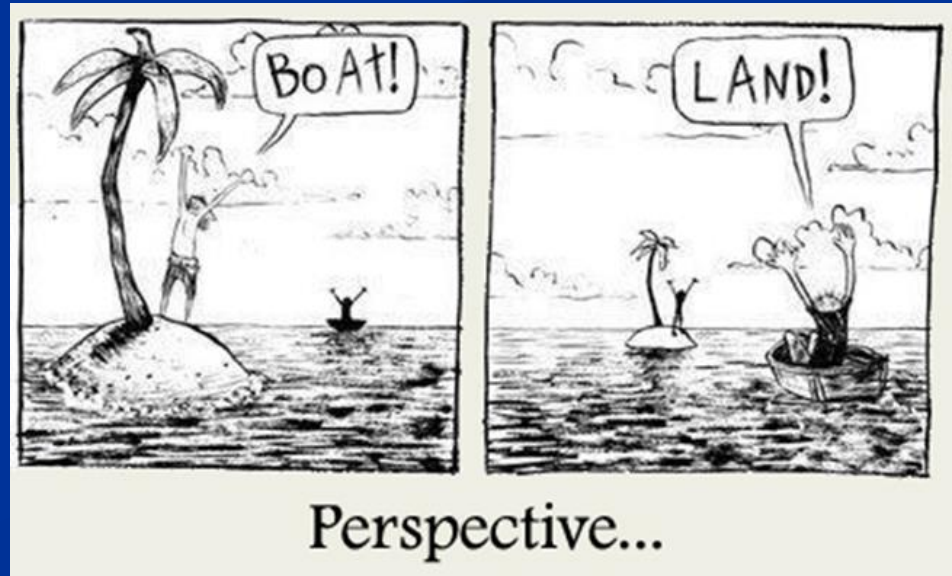


Reflections



Using Cognition to alter pain perceptions

Reframing



Novel learning



Novel skills



Novel acquaintances

New activities

- Time to figure out each step
- Unknown outcomes
- Fatiguing
- Awkward
- No easy flow

Automatic Thinking



Familiar Activity

- Flows easily
- Mindless
- Efficient
- Multi-task
- Lower stress



But...Can close off need
for novelty, and creativity

- Closed minded

If Novel Learning is Negative, Automatic Thinking becomes Negative

Acute pain is awful

- Feels better with rest, avoiding tasks, withdraw socially
- Prepares self for the worst
- Catastrophizing – produces negative emotions



When pain becomes chronic

- Tendency to retain acute pain thinking
- Don't revisit assumptions about pain
- Physiological toll - deconditioning
- Need to focus on challenging old assumptions



STEP 1	STEP 2	STEP 3	STEP 4
Identify the situation that causes negative thoughts	Describe your negative thoughts	Describe your emotions	Reframe your thoughts
<p>I haven't done the laundry in weeks. It just hurts too much.</p>	<ul style="list-style-type: none"> • I'm a terrible wife • I can't do anything anymore • My husband will be angry with me 	<ul style="list-style-type: none"> • Guilt • Worthlessness • Anxiety 	<ul style="list-style-type: none"> • Having fibromyalgia is not my fault, and it does not mean I am a bad wife • There are many things I can do without help, but laundry is not one of them • If I explain to my husband about my pain and ask for his help, he'll understand

Mindfulness Meditation

- State of consciousness where the focus is on attention, awareness and moment-by-moment experience
- Attitude of curiosity, openness, and acceptance
- Decreased automatic thinking, and analytical self-referential rumination



The Relaxation Response



Actions



Using Behavior to alter pain perceptions and provide a foundation of wellness

Exercise

- Multiple reviews and meta-analyses, and professional society guidelines recommend exercise and physical activity for the treatment of chronic pain and fatigue
- Increase Fitness
- Increase Function





**“Many studies show that exercise will help your pain and fatigue.
I want you to start exercising.”**



OK!!

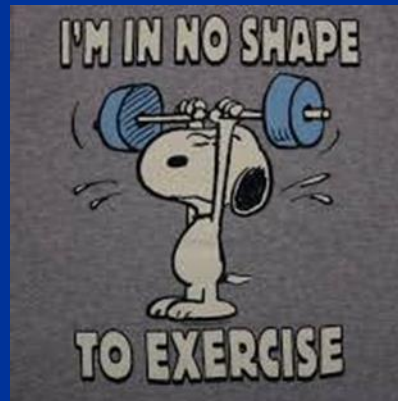
More common responses



Silence



The are “you insane” stare



Resistance

Exercise needs to start with a patient-centric conversation

- Merits
- Barriers
- Motivation
- Rewards
- How to get started

Merits

20 Exercise Benefits

1. Reduces body fat
2. Increases lifespan
3. Oxygenates body
4. Strengthens muscles
5. Manages chronic pain
6. Wards off viruses
7. Reduces diabetes risk
8. Strengthens heart
9. Clears arteries
10. Boosts mood
11. Maintains mobility
12. Improves memory
13. Improves coordination
14. Strengthens bones
15. Improves complexion
16. Detoxifies body
17. Decreases stress
18. Boosts immune system
19. Lowers blood pressure
20. Reduces cancer risk

www.facebook.com/montereybayholistic



THE BRAIN BENEFITS OF EXERCISE



INCREASES PRODUCTION OF
NEUROCHEMICALS THAT
PROMOTE BRAIN CELL REPAIR



IMPROVES
MEMORY



LENGTHENS
ATTENTION SPAN



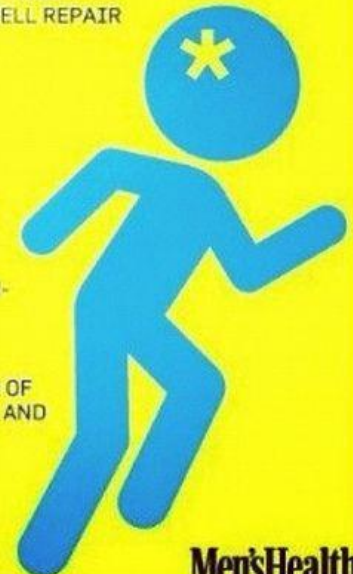
BOOSTS DECISION-
MAKING SKILLS



PROMPTS GROWTH OF
NEW NERVE CELLS AND
BLOOD VESSELS



IMPROVES
MULTI-TASKING
AND PLANNING



Men'sHealth

Barriers



I'm in too much pain to exercise



I'm too fatigued to exercise

Skinny people will laugh at me.

I'm too busy to exercise

I can't afford a gym membership

It's not fun

I hate sweat.

I don't live where I can exercise

I don't have any workout clothes

I have kids to drive around

No one will exercise with me.

Problem Solving, Motivation, and Rewards



**EXERCISE IN
THE MORNING**
BEFORE YOUR BRAIN FIGURES
OUT WHAT YOU'RE DOING

**EXERCISING WOULD
BE SO MUCH MORE
REWARDING IF
CALORIES
SCREAMED WHILE
YOU BURNED THEM**

Types of Physical Activity

■ Aerobic training

- at moderate intensity can improve pain, fatigue, depressed mood and physical limitations

■ Strength training

- may decrease pain, and depression, and improve overall well-being

■ Movement therapies

- Tai Chi – improves balance, well-being, fitness and pain
- Yoga – improves pain functioning, HRQOL

Step Counts

- Activity trackers – Fitbit (\$100) and pedometers can be found for as little as \$10.
- Every day beat the day before by 50 steps.
- Healthy: 10,000 steps a day
 - (18 – 1,900 steps in a mile)



Lifestyle Physical Activity



Aerobic Lifestyle Fitness



How should I do it?

- Follow the F.I.T.T. principle:
 - *Frequency* – Number of days per week. (e.g., 3x per wk)
 - *Intensity* – How hard the activity feels to you.



<i>RPE</i>	
4	Maximal effort/strain
3	Quite hard
2	Somewhat hard
1	Quite easy
0	Minimal effort/strain

- *Time* – The total time you do physical activity. (e.g. 30min)
- *Type* – The kind of physical activity you do.

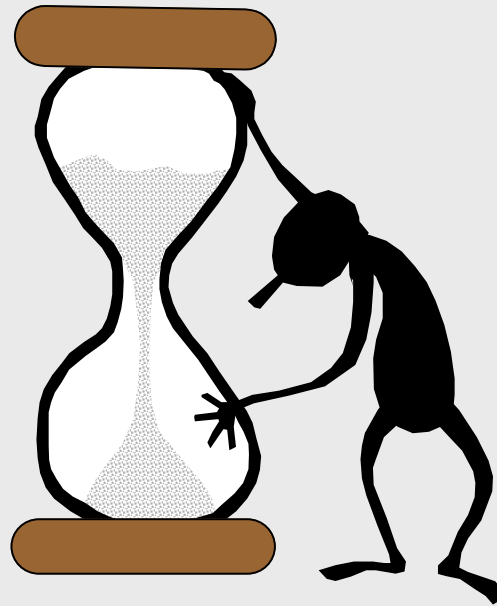
Pacing for Energy Efficiency





Behavioral Activation Skills

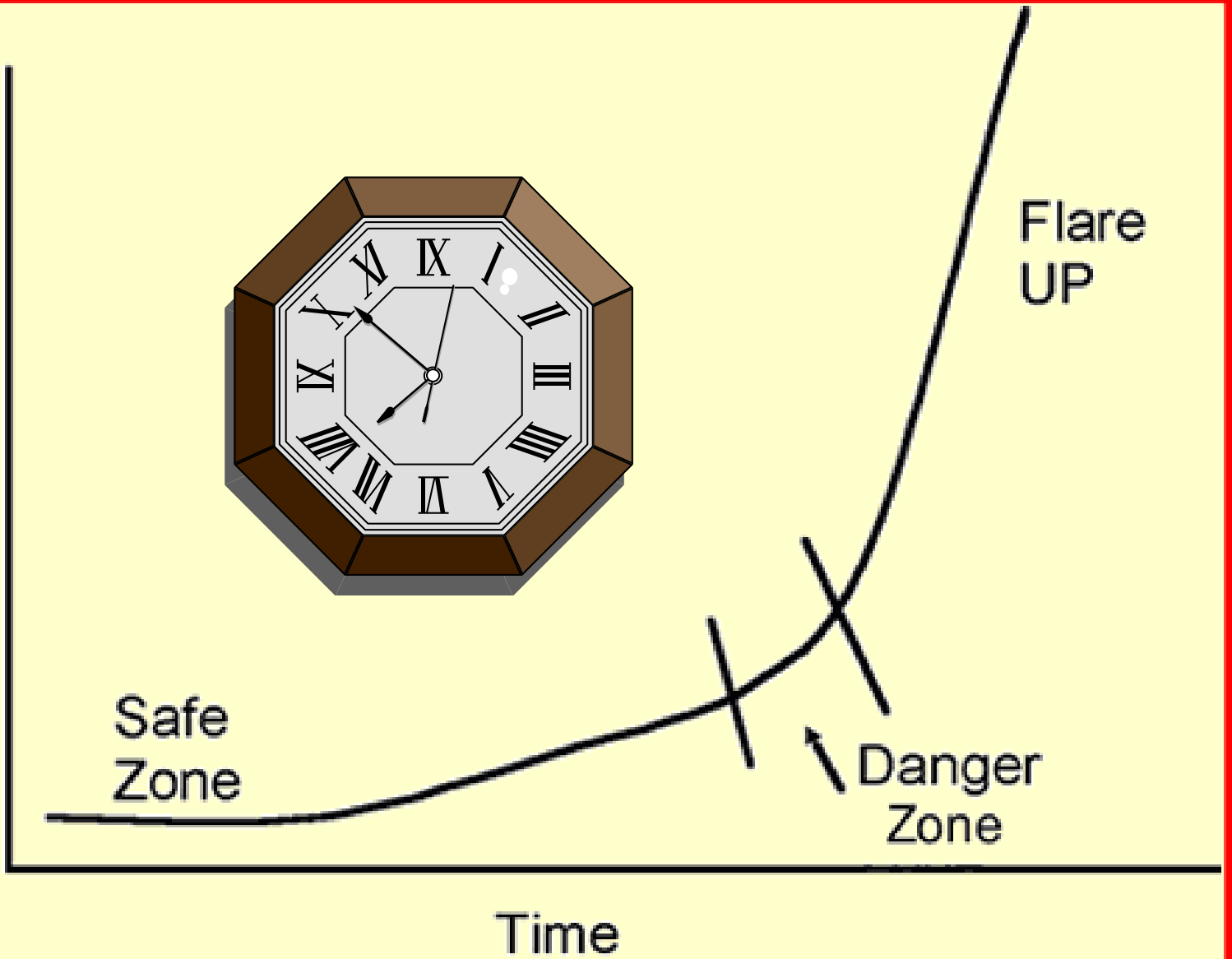
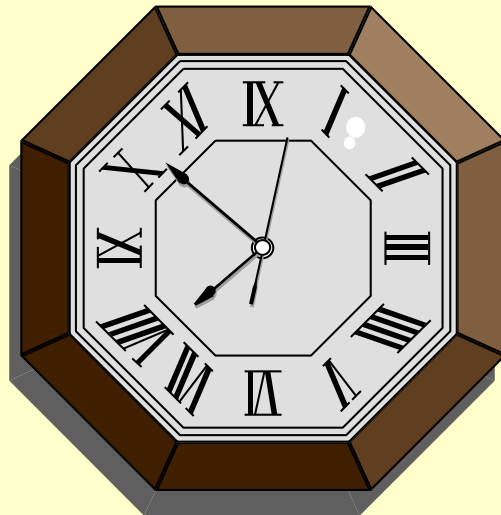
Time-Based Pacing



Activity-Rest-Activity-Rest

S
Y
M
P
T
O
M

L
E
V
E
L



Safe
Zone

Danger
Zone

Flare
UP

Time

ERASE

ACTION



Step 1
Identify the Problem

Step 2
Collect Information
What do I know about this problem?
Where can I get more information?

Step 3
Brainstorm Solutions

Step 6
Review and Evaluate
What happened?

Step 5
Develop Workable Plan

Plan:

Barriers:

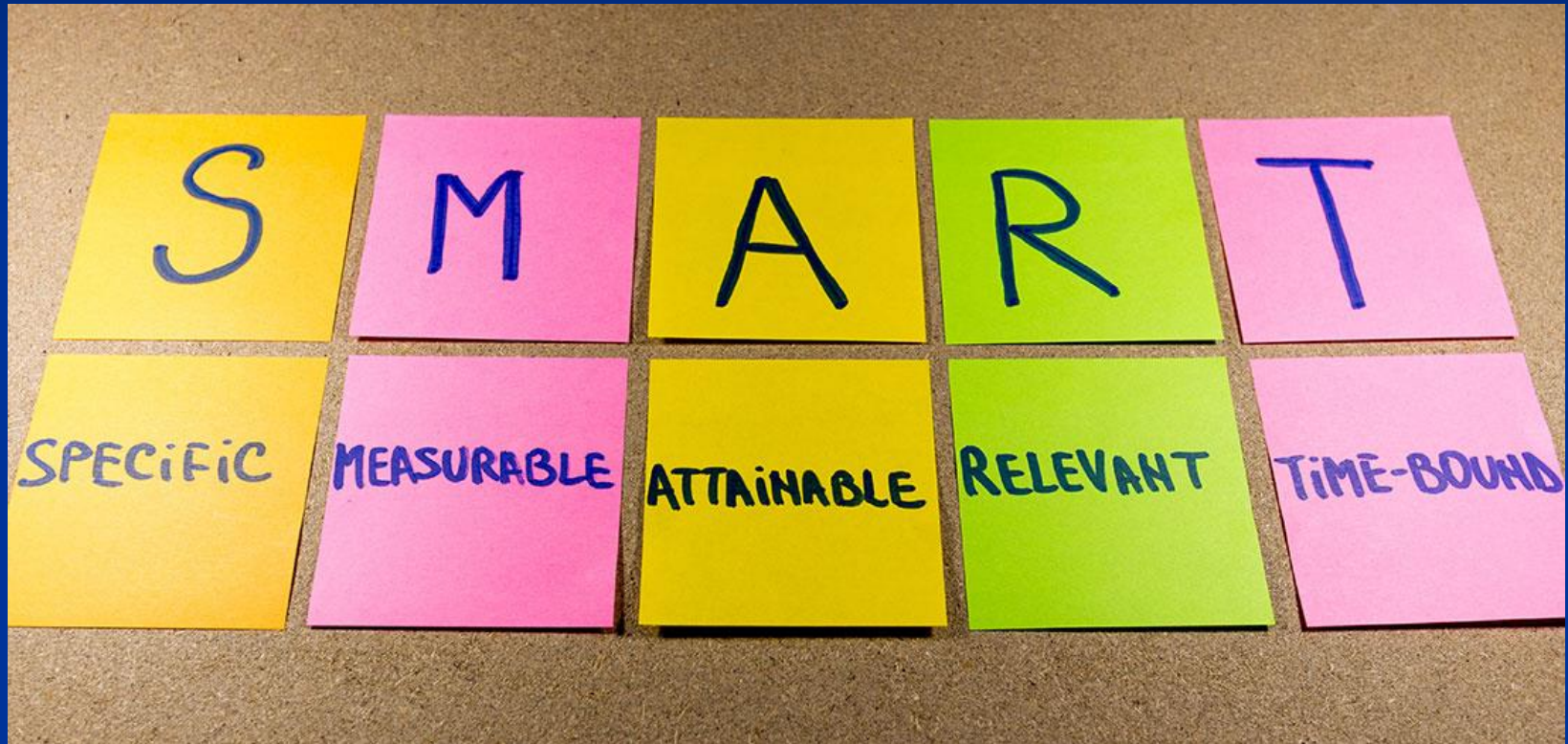
Choices:
Put your plan into action
Barriers too great (go back to Step 3)
Multiple problems (go back to Step 1)

Step 4
Evaluate Brainstorming Ideas
Consider each idea from Step 3 in terms of
its being realistic and favorable

Choose one solution to try:

The Problem Solving Cycle Worksheet

Goal Setting



Poor Goal: Make a bunch of money

Strategic Goal: Make \$50 this week

Tactical Goal: Sell my old suits to consignment store on Thursday

Nutrition



Education



Educational Resources



- Self-help books on Chronic Pain

-Amazon lists 100 (1/2018)



- Subscription magazines
- Patient organizations



Sleep



Altering Pain via Sleep

One night's loss of sleep...

- Impacts the next 2 days
 - Physical ability
 - Coordination
 - Dexterity
 - Energy
 - Mental ability
 - Emotional stability
 - Memory
 - Concentration



Sleep Hygiene Skills

Timing

Regular bed time/wake time

Sleep Behavior

Get in bed only when sleepy

Use bed for sleep

Get up after 15' if no sleep

Thermal Tips

Decline in core temp signals sleep

Exercise, warm bath before bed

Environment

Steady room temperature

Keep room dark

Ingestion

Decrease nicotine

Decrease Caffeine

Alcohol interferes with sleep

Light snack is recommended

Mental Control

Effort will not produce sleep

Avoid mental stimulation

Seek mental quiescence

Environment



Using the Environment to alter pain perceptions
and provide a foundation of wellness

Social Challenges



Awkward
Tense
Confrontational

Dr. -Patient



Caring at first
Withdrawal
Dependent
Loss

Friends



Withdrawal
Impatience
Shifting roles
Dependence
Loss
Loss of Self-esteem

Family



Employer and co-workers

Others cover
Competence?
Accommodate?
Loss of role
Lost Self-esteem
Lost Motivation
Lost social position

Nature / Nurture



Genetic and Environmental influences on pain perception

Web-based self-management “FibroGuide”

FibroGuide

Home
About FibroGuide
Getting started
Steps for me
FibroGuide modules
About us

FibroGuide Modules

FibroGuide Menu MINIMIZE

Tell Me How FibroGuide Works | Steps for Me

STEPS

Understanding Fibromyalgia | Communicating | Being Active
Sleep | Relaxation | What is Fibro Fog?
Setting Goals | Pacing Yourself | Thinking Differently
Time for You

Color Key: Step My Steps Visited Step

Back Forward

Use the FibroGuide menu to navigate the program. Once you make a selection, the menu will minimize to the bottom of your screen. You can always access it by clicking on the arrow in the upper corner of the menu.

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FibroGuide

Home
About FibroGuide
Getting started
Steps for me
FibroGuide modules
About us

Pacing Yourself

Feeling well and doing too much
Have you ever done too much when you feel well and then "paid for it" later? If so, you may have fallen into a frustrating cycle in which you overdo it and then feel worse, which then causes you to have more pain and fatigue. Overexerting yourself can cause a flare-up, which is a term that is used to describe a transient appearance or worsening in symptoms such as feeling muscle and joint pain, feeling tired, or having trouble getting the right kind of sleep.

When you get caught up in this catch-up/flare-up cycle, you may:

- Feel well and do too much
- Have a flare-up
- Fall behind in tasks while you rest and recover
- Repeat the cycle when you feel well again

Many people with fibromyalgia may find it easier to fall into this catch-up/flare-up cycle because tasks, like household chores, that used to be quick and simple may now take longer to complete. This can make it hard to accomplish everything that you need to do each day. As a result, you may feel the need to make up for bad days by playing catch-up on good days.

Do more by **pacing yourself**
Learning how to pace yourself can help you break this catch-up/flare-up cycle. Pacing

Inside This Step:

- Feeling well and doing too much
- It's time to pace yourself
- Put it into practice
- A note for family and friends

Added Features:

- Pacing Yourself Work Sheet
- Expert Advice

Download this Step

Page 1 of 4

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Pain Care Pathway

